

**TECHNOLOGY NEEDS/OPPORTUNITIES STATEMENT
METHOD FOR PERFORMING ROOF INSPECTIONS FOR THE S&M PROGRAM**

Identification No.: RL-DD067

Date: August 2001

Program: Surveillance and Maintenance

OPS Office/Site: Richland Operations Office/ Hanford Site

PBS No.: RL-CP01

Waste Stream: N/A

TSD Title: N/A

Waste Management Unit (if applicable): N/A

Facility: All facilities in S&M

Priority Rating: This entry addresses the Accelerated Cleanup: Paths to Closure (ACPC) Priority:

- _____ 1. Critical to the success of the Accelerated Cleanup: Paths to Closure (ACPC)
- _____ 2. Provides substantial benefit to the ACPC projects (e.g., moderate to high lifecycle cost savings or risk reduction, increased likelihood of compliance, increased assurance to avoid schedule delays)
- X 3. Provides opportunities for significant, but lower cost savings or risk reduction, and may reduce uncertainty in ACPC project success.

Need Title: Method for performing roof inspections for the Surveillance and Maintenance (S&M) Program.

Need/Opportunity Category: *Technology opportunity* - the project desires an alternative to the current or planned baseline technology/process (i.e., a baseline exists but can be improved).

Need Description: An improved method is needed to inspect the condition of aging roofs and to collect data to feed the U.S. Army Corps of Engineer Roof Integrity Model.

Schedule Requirements:

Earliest Date Required: 10/1/2001

Latest Date Required: This is an ongoing need.

Problem Description: As facilities age, roof integrity decreases and may result in unsafe conditions for manual inspection. Therefore, a means of inspecting the roofs without requiring a manual inspection is desired.

Benefit to the Project Baseline of Filling Need: Meeting this need will result in increased worker safety.

Functional Performance Requirements: The method should not involve access by personnel on the aging roof and must be able to provide information similar to a roofing expert's visual

inspection. The collected information must be sufficient as input to a Corps of Engineers' model used for determining roof integrity

WBS No.

1.4.03.3.1.02.05.03 and
1.4.03.3.1.01.05.03

TIP No.

N/A

Relevant PBS Milestone: PBS-MC-030

Justification for Need:

Technical: Current methods can become dangerous to personnel as roof conditions deteriorate over time.

Regulatory: None known.

Environmental Safety & Health: Aging roofs pose a safety hazard for inspecting personnel.

Cost Savings Potential (Mortgage Reduction): Unknown. Cost savings would be expected in injuries prevented and lives saved.

Cultural/Stakeholder Concerns: Improved inspection methods would result in greater worker safety and would reduce the potential for contamination releases associated with aging roofs.

Other: None identified.

Current Baseline Technology: Manual inspection of each roof.

End User: Environmental Restoration Project

Site Technical Point-of-Contact:

Kim Koegler, BHI, (509) 372-9294, (509) 372-9654, kjkoegle@bhi-erc.com

Bob Egge, BHI, (509) 373-2774, (509) 373-7711, rgegge@bhi-erc.com

Sue Garrett, PNNL, (509) 375-2398, (509) 375-6417, sue.garrett@pnl.gov

Contractor Facility/Project Manager:

Jerry McGuire, BHI, (509) 373-7253, (509) 373-4509, jjmcguir@bhi-erc.com

DOE End User/Representative Points of Contact:

John Sands, (509) 372-2282, (509) 373-0726, John_P_Sands@rl.gov

Paul Valcich, (509) 373-9947, (509) 373-9838, Paul_J_Valcich@rl.gov